### THE REDISCOVERY OF *TAGIADES NESTUS* (C. FELDER) (LEPIDOPTERA: HESPERIIDAE: PYRGINAE) IN AUSTRALIA

# PETER S. VALENTINE<sup>1</sup> and STEPHEN J. JOHNSON<sup>2</sup>

### <sup>1</sup>Tropical Environment Studies & Geography, James Cook University, Townsville, Qld 4811 <sup>2</sup>84 Pacific Parade, North Kirra, Qld 4225

#### Abstract

*Tagiades nestus korela* Mabille is rediscovered in Torres Strait, Queensland, after almost 100 years. A breeding population is recorded on Dauan Island in northern Torres Strait, feeding on climbing yam vines, *Dioscorea* sp. (Dioscoraceae).

#### Introduction

*Tagiades nestus* (C. Felder) was first recorded in Australia from a single male, collected by H. Elgner in 1910 on Darnley Island in eastern Torres Strait (Waterhouse and Lyell 1914). This specimen appears to belong to *T. n. korela* Mabille, which occurs on mainland New Guinea and adjacent islands (Braby 2000). Since then, there have been no further records of the species in Australia.

In April 2004, we undertook a survey of butterflies on Dauan Island (9°25'S  $142^{\circ}32'E$ ), in the northern sector of Torres Strait. This small island of around 400 ha is dominated by Mt Cornwallis and mostly comprises a patchwork of rocky slopes and vine thickets. A small settlement on the northeastern beach supports the Dauan community, with a few outlying homes along a single track that traverses the island from east to west along the northern base of the mountain. An extensive area of mangroves fringes the northwestern sandy flats at the base of Mt Cornwallis.

In April 2004, adults of an unidentified species of *Tagiades* Hübner were observed on Dauan I. but not collected. Subsequently, we found larvae in distinctive shelters on climbing yam vines (*Dioscorea* sp.: Dioscoraceae) growing under mango trees adjacent to vine thickets. Shelters were also found on vines in the northwestern area of the island, where yams are commonly grown as a garden crop. Larvae were collected and reared to adults, which were found to belong to *T. nestus* (Fig. 1).

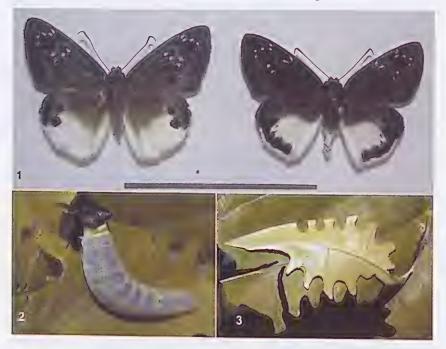
#### Discussion

Typical late instar larval shelters have very distinct lobes cut in the leaf edge (Fig. 3), and larvae of *T. nestus* are very similar to those of *T. japetus* (Stoll), having a black heart-shaped head, a pale body covered with tiny white spots and two large dorsal spots on the 9th abdominal segment (Fig. 2).

Adults of *T. nestus* and *T. japetus* (Fig. 1) can be readily separated, predominantly by the brown dorsal colour of the entire abdomen of *T. japetus*, compared with the distinct white abdomen of *T. nestus* (Parsons 1998). In addition, the upperside hindwing pattern of *T. nestus* differs from that of *T. japetus* in having a more continuous black hindwing margin. The

ground colour in T. *nestus* is also more distinctly black than in T. *japetus*, which has a more brownish hue. The size of the hyaline spots on the forewing also differ between the two species.

In Torres Strait, we have previously recorded *T. japetus janetta* Butler from Dauan, Moa and Darnley Is and it is interesting that the two species co-exist on Dauan and possibly also on Darnley I. It is likely that further collecting on other islands in the Torres Strait might reveal further populations of *T. nestus korela*, especially given the prevalence of yam vines in gardens.



**Figs 1-3.** Tagiades spp. (1) Adults of *T. japetus* (left) and *T. nestus* (right) [scale bar = 40 mm]; (2) final instar larva of *T. nestus*; (3) third instar larval shelter of *T. nestus*.

## Acknowledgement

We thank the Dauan Island Council for permission to undertake the survey.

### References

BRABY, M.F. 2000. Butterflies of Australia: their identification, biology and distribution. CSIRO Publishing, Collingwood; xxvii + 976 pp.

PARSONS, M. 1998. The butterflies of Papua New Guinea: their systematics and biology. Academic Press, London; xvi + 736 pp, 162 pls.

WATERHOUSE, G.A. and LYELL, G. 1914. The butterflies of Australia. A monograph of the Australian Rhopalocera. Angus and Robertson, Sydney; vi + 239 pp.